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09/838,170	04/20/2001	Shigemi Kurashima	1614.1162	9034

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EXAMINER	
NGUYEN, KIMNHUNG T	
ART UNIT	**PAPER NUMBER**
2629	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/838,170	KURASHIMA ET AL.	
	Examiner	Art Unit	
	Kimnhung Nguyen	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 3/20/07.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-30 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-30 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This application has been examined. The claims 1-30 are pending. The examination results are as following.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 12-15 and 24-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Hum et al. (US 6,714,133).

Regarding claim 12, Hum discloses an input system comprising an information generation part generating input in formation based on a given input operation; a transmission part generating a signal by having a carrier frequency modulated with the input information, and transmitting the generated signal; a plurality of wave direction parts (see signals 17a-17c) provided close to said transmission part (6) so as to provide the signal transmitted from said transmission part with directivity; and a reception part (6) receiving the transmitted signal through each of the wave direction parts and modulating the received signal into the same input information, wherein the signal transmitted at a timing form the transmission part is provided alternately to the wave direction parts (see wave signals of 17a-17c, fig. 1) so that the same input information is transmitted alternately through the wave direction.

Regarding claim 13, Hum discloses further, a switching part (5) switchable between said wave direction parts (signals 17a-17c) based on a control signal supplied from said information generation part so that each of the signals transmitted from the transmission part is supplied to a corresponding one of the wave direction parts (fig. 1).

Regarding claim 14, Hum discloses further, wherein said transmission part (6) comprises a plurality of transmission circuits (2, 4,5,7) for transmitting signal.

Regarding claim 15, Hum discloses further, wherein said wave direction parts are antennas (fig. 1).

Regarding claim 24, claim 24 is similar claim 12 and discussed above.

Regarding claim 25, claim 25 is similar claim 13 and discussed above.

Regarding claims 26, 27, claims 26, 27 are similar claims 14, 15 and discussed above.

Regarding claims 28, 29, Hum discloses further, wherein said transmission part comprises a switching part (5) that causes switching between the different carrier frequencies (see fig. 1, see col. 8, lines 21-24, col. 10, lines 35-38); so that the different carrier frequencies are alternately modulated with the input information.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-11, 16-23 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hum et al. (US 6,714,133) in view of Sutton et al. (US 6,915,112)

Regarding claims 1, 16, Hum et al. discloses in figure 1, an input system (10) comprising an information generation part which generates input information (12) based on a given input operation; a transmission part (6) substantially transmitting the interrogation signals (see signals 17a-17c) generated by having a plurality of different carrier frequencies modulated with the same input information (see interrogator 12 may generate signals of different radio frequencies, see col. 8, lines 21-24, col. 10, lines 35-38); and a reception part (6) receiving the transmitted signals and demodulating (4) the signals into the same input information (12).

However, Hum et al. does not disclose a simultaneously transmitting a first signal and a second signal with the same input.

Sutton et al. discloses in fig. 6, disclose a simultaneously transmitting a first signal and a second signal with the same input (see multiple radios in the same device, the both radios can be used simultaneously, they maybe able to receive or send signals at the same time (see col. 7, lines 16-17 and lines 56-60).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the transmitting system having a first and a second signals are transmitted simultaneously from the same antenna as taught by Sutton et al. into the information generation part generating input information based on a given input operation of Hum et al. for producing the claimed invention because this would provide both radios can be used simultaneously, for instance both radios may be to receive at the same time, both radios may be able to send at the same time (see col. 7, lines 57-59).

Regarding claims 2, 17, Hum discloses in figure 1, the input system further comprising wave direction parts (see signals 17a-17c) which are provided close to said transmission part so as to provide the signals transmitted from said transmission part with directivity.

Regarding claims 3,18, Hum discloses wherein said wave direction parts are antennas (see signals 17a-17c).

Regarding claims 4, 19, Hum discloses in fig. 1, the transmission part (6) comprises a plurality of transmission circuits (2, 4,5,7) for transmitting the signals of the different carrier frequencies as discussed above.

Regarding claims 5-6, 20-21, Hum discloses in figure 1, the transmission part (6) comprises an output part (8) which successively outputs of the different carrier frequencies and modulation part (4) as discussed above.

Regrading claim 7, Hum discloses in fig. 1, the reception part (6) comprises a plurality of reception circuits (4, 5, 7) for receiving the transmitted signals and demodulating (4) the signals into the input information (10).

Regarding claims 8-9, Hum discloses the input system further comprising an inherent pad member (because input device (9) is a keypad, keyboard or another input device (see col. 6, lines 51-53) and including conductive wire (see col. 3, lines 53-56), and further comprising a conductive part (see keyboard).

Regarding claims 10, 23, Hum discloses further an inherent conductive plate member (see keyboard associated with objects such as dashboards and provide feedback to the user), and conductive part (keyboard), therefore, wherein said conductive part contacts said conductive

plate member so that the signals transmitted from the transmission part are transmitted via said conductive part to the conductive plate member.

Regarding claim 11, Hum discloses in fig. 1, the input system comprising a plurality of wave direction parts (see signals 17a-17c) for receiving the signals transmitted from said transmission part (6), said wave direction parts being provided on a side of said reception part (6).

Regarding claim 30, Hum discloses in fig. 1, an input device, comprising an information generation part generating input information (10) based on an input operation; and a transmission part (6) substantially simultaneously transmitting the same input information by a plurality of carrier frequencies (see col. 8, lines 21-24, col. 10, lines 35-38).

Response To Arguments

6. Applicant's arguments with respect to claims filed on 3/20/07 have been considered but are moot in view of the new ground(s) of rejection.

After reexamined of claims 12-15 and 24-29, Examiner has withdrawn the subject matter previous found allowable because Hum et al. does teach a signal transmitted at a timing from the transmission part is provided alternately to the wave direction parts so that the same input information is transmitted alternately through the wave direction parts by using an interrogation signal to be transmitted to the transponders 18a through 18n at one timing is to be transmitted simultaneously to the ports 16a through 16n (see col. 5, lines30-35).

Applicant states "as illustrated, for example in fig. 8, multiple signals are output from antenna (waveguide parts) 29 and 30, but at a point of generation in the transmission circuit 211, there is one signal generated in and transmitted from the transmission circuit 211".

Examiner respectively disagrees because as illustrated in fig. 8 is not the same language of the claimed invention.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimnhung Nguyen whose telephone number is (571) 272-7698. The examiner can normally be reached on MON-FRI, FROM 8:30 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe can be reached on (571) 272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kimnhung Nguyen
Patent Examiner
May 31, 2007